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| 10/707,390 | 12/10/2003 | Mark Andrew Lillis | PES-0183 | 1389 |
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| Philmore H. Colburn II Cantor Colburn LLP 55 Griffin Road South Bloomfield, CT 06002 | | | SCHNEIDER, CRAIG M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3753 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/707,390 | LILLIS, MARK ANDREW | |
| | Examiner | Art Unit | |
| | Craig M. Schneider | 3753 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 31-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-26, and 31-32 is/are rejected.
- 7) ☒ Claim(s) 8 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 11, 13-15, 25, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujita (US2002/0148502).

Fujita discloses a gas regulation system (20) comprising a manifold (the piping 40 and to each block valve 42, 44, 46, and 48), a plurality of control modules (42, 44, 46, and 48) in fluid communication with the manifold, wherein each control module comprises an actuable valve in fluid communication with an associated gas storage device (22, 24, 26, and 28), and a power source (60) in electrical communication with each of the actuable valves. The power source is “adapted to” prevent simultaneous actuation of multiple valves because it is not only capable of actuating one valve at a time, Fujita implicitly discloses that only one valve is actuated in certain modes; thus actuation of the other valves is prevented in those modes. The power source is “adapted to prevent...” because there are separate actuation signals sent to each of the valves (see Fig. 1) and there is a mode in which the valves are actuated one at a time which inherently prevents the actuation of the other valves.

Regarding claim 11, the system comprising a test module in electrical communication with the manifold controller (page 2, paragraph 16-17).

Regarding claim 13, the system comprising an electrochemical cell system in fluid communication with the manifold, wherein the electrochemical cell system comprises a fuel cell (page 1, paragraph 13).

Regarding claim 14, wherein the power source is in electrical communication with a manifold controller adapted to provide operational logic to each of the circuits of the actuatable valves.

Regarding claim 15, wherein the gas is a hydrogen gas (page 1, paragraph 2).

Regarding claim 25, a control module for a gas regulation system having a manifold, the control module comprising a processing unit responsive to an external control signal, an actuatable valve responsive to the processing unit and a power source, and adapted for fluid communication between a gas storage device and the manifold.

Regarding claim 31, wherein each one of the control modules further comprise one or more of gas connectors (32, 34, 36, and 38 and 40 to each of the modules) and electrical connectors (the dashed line to 43, 45, 47, 49 from 60).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita as applied to claim 1 above, and further in view of Agricola et al. (US2002/0134342).

Fujita discloses all the features of the claimed invention except that the system comprises a directional pressure-reducing device disposed between the manifold and

the control module. Agricola et al. disclose that the pressure reducing valve (7) is disposed between the manifold (1) and the control valves (8 and 9)(page 1, paragraph 17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the pressure reducing valve as disclosed by Agricola et al. onto the system of Fujita, in order to provide the gas at the required working pressure for the components.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita as applied to claim 1 above, and further in view of Takeda et al. (US2002/0092575).

Fujita discloses all the features of the claimed invention except that the system comprises a directional pressure-reducing device disposed between the control module and the gas storage device. Takeda et al. disclose that the pressure reducing valve is disposed immediately outside the gas storage device.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the pressure reducing valve of Takeda et al. onto the system of Fujita, in order to reduce the pressure of the gas to a workable pressure.

6. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita as applied to claim 1 above, and further in view of Belcher, Jr. (2,793,813).

Fujita discloses all the features of the claimed invention except that the gas regulation system further comprises an impedance safety monitor device in electrical communication with the power source. Belcher, Jr. discloses the use of an impedance

device to take the place of a sensing element in a control circuit that would sense the condition of the system and further has a shut down component (col. 1, lines 56-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the impedance device of Belcher, Jr. onto the system of Fujita, in order to have a sensing element that could shut down the system if a problem occurred.

7. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita.

The examiner took official notice that the use of an impedance safety monitor device is old and well known in the art and would be combined with the device of Fujita for reasons that old and well known in the art. Since applicant did not traverse the examiner's assertion of official notice, this is taken as admitted prior art (see MPEP 2144.03).

8. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita as applied to claim 1 above, and further in view of Petite et al. (US2002/0125998).

Fujita discloses all the features of the claimed invention except that the control modules further comprise a local control-processing unit in electrical communication with a manifold controller. Petite et al. disclose the use of a central controller (130) and a local controller (110)(page 3, paragraph 42).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the local controllers of Petite et al. onto the system of Fujita, in order to have control of the system local to the system.

9. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita.

The examiner took official notice that the use of an impedance safety monitor device is old and well known in the art and would be combined with the device of Fujita for reasons that old and well known in the art. Since applicant did not traverse the examiner's assertion of official notice, this is taken as admitted prior art (see MPEP 2144.03).

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita as applied to claim 1 above, and further in view of Watson (3,322,135).

Fujita discloses all the features of the claimed invention except that the actuatable valves comprise a solenoid valve. Watson discloses solenoid valves (23) on the discharge side of tanks (col. 4, lines 47-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the solenoid valves as disclosed by Watson onto the actuatable valve of Fujita, in order to utilize more cost effective valves.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita-Agricola et al. as applied to claim 2 above, and further in view of Takeda et al..

Fujita-Agricola et al. disclose all the features of the claimed invention except that the pressure reducing valve comprises a check valve adapted to provide a substantially unimpeded flow of a gas from the manifold to the control modules. Takeda et al. disclose a valve structure that includes both a pressure reducing valve (21 and 22) and

a check valve (32) as seen in Figures 2 and 3 which is adapted to provide a substantially unimpeded flow of a gas (page 3, paragraph 45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the check valve/pressure reducing valve combination as disclosed by Takeda et al. onto the system of Fujita-Agricola et al., in order to have the uninhibited flow of gas into the cylinders.

12. Claim 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita as applied to claim 25 above, and further in view of Belcher, Jr..

Fujita discloses all the features of the claimed invention except that the gas regulation system further comprises an impedance safety monitor device in electrical communication with the power source. Belcher, Jr. discloses the use of an impedance device to take the place of a sensing element in a control circuit that would sense the condition of the system and further has a shut down component (col. 1, lines 56-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the impedance device of Belcher, Jr. onto the system of Fujita, in order to shut down the system under certain operating conditions.

13. Claims 1, 10-11, 14, 16, 18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over McJones (3,719,196) in view of Fujita.

McJones discloses a gas regulation system comprising a manifold (62), a plurality of control modules (20, 22, and 24) in fluid communication with the manifold (col. 5, lines 1-6), wherein each control module comprises an actuatable valve in fluid communication with an associated gas storage device (14, 16, and 18)(col. 3, line 63 to

col. 4, line 7) and that more than one valve will not be actuated at a time (col. 2, lines 9-12). McJones does not disclose a power source in electrical communication with each of the actuable valves. Fujita discloses the use of a power source for controlling the actuable valves and also that the valves are electrical.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the electrical controls and the electrically actuable valves of Fujita onto the system of McJones, in order to electrically actuate the valves.

Regarding claim 10, McJones discloses the serial circuits and modifying it in view of Fujita would have electrical circuits in series.

Regarding claim 11, the system comprising a test module in electrical communication with the manifold controller (page 2, paragraph 16-17).

Regarding claim 14, wherein the power source is in electrical communication with a manifold controller adapted to provide operational logic to each of the circuits of the actuable valves.

Regarding claim 16, a process for operating a gas regulation system, wherein the gas regulation system comprises a manifold, a plurality of control modules in fluid communication with the manifold, and a power source in electrical communication with the plurality of control modules, wherein each of the control modules comprises an actuable valve in fluid communication with an associated gas storage device, and a circuit comprising a switch in electrical communication with the actuable valve and the power source, the process comprising closing a selected one of the switches and energizing the circuit defined by the closed switch to open the actuable valve, wherein

energizing the circuit comprises supplying power to the circuit to enable actuation of the actuatable valve, wherein the power is insufficient to actuate the actuatable valve if more than one switch is closed.

Regarding claim 25, a control module for a gas regulation system having a manifold, the control module comprising a processing unit responsive to an external control signal, an actuatable valve responsive to the processing unit and a power source, and adapted for fluid communication between a gas storage device and the manifold, wherein the actuatable valve opens to provide fluid communication between the gas storage device and the manifold in response to a signal from the processing unit and in the absence of a second actuatable valve of a second control module of the gas regulation system being open.

Regarding claim 31, wherein each one of the control modules further comprise one or more of gas connectors (32, 34, 36, and 38 and 40 to each of the modules) and electrical connectors (the dashed line to 43, 45, 47, 49 from 60).

Regarding claim 32, the process further comprising reading a unique identifier associated with each gas storage device for tracking operational information relating to each gas storage device (page 2, paragraph 15).

14. Claims 2 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 1 above, and further in view of Agricola et al. (US2002/0134342).

McJones and Fujita disclose all the features of the claimed invention except that the system comprises a directional pressure-reducing device disposed between the

manifold and the control module. Agricola et al. disclose that the pressure reducing valve (7) is disposed between the manifold (1) and the control valves (8 and 9)(page 1, paragraph 17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the pressure reducing valve as disclosed by Agricola et al. onto the system of McJones and Fujita, in order to provide the gas at the required working pressure for the components.

15. Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 1 above, and further in view of Takeda et al. (US2002/0092575).

McJones and Fujita disclose all the features of the claimed invention except that the system comprises a directional pressure-reducing device disposed between the control module and the gas storage device. Takeda et al. disclose that the pressure reducing valve is disposed immediately outside the gas storage device.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the pressure reducing valve of Takeda et al. onto the system of Fujita, in order to reduce the pressure of the gas to a workable pressure.

16. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 1 above, and further in view of Belcher, Jr. (2,793,813).

McJones and Fujita disclose all the features of the claimed invention except that the gas regulation system further comprises an impedance safety monitor device in

electrical communication with the power source. Belcher, Jr. discloses the use of an impedance device to take the place of a sensing element in a control circuit that would sense the condition of the system and further has a shut down component (col. 1, lines 56-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the impedance device of Belcher, Jr. onto the system of McJones and Fujita, in order to have more control of the system.

17. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita.

The examiner took official notice that the use of an impedance safety monitor device is old and well known in the art and would be combined with the device of Fujita for reasons that old and well known in the art. Since applicant did not traverse the examiner's assertion of official notice, this is taken as admitted prior art (see MPEP 2144.03).

18. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 1 above, and further in view of Petite et al. (US2002/0125998).

McJones and Fujita disclose all the features of the claimed invention except that the control modules further comprise a local control-processing unit in electrical communication with a manifold controller. Petite et al. disclose the use of a central controller (130) and a local controller (110)(page 3, paragraph 42).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the local controllers of Petite et al. onto the system of McJones and Fujita, in order to add more control to the system.

19. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita.

The examiner took official notice that the use of an impedance safety monitor device is old and well known in the art and would be combined with the device of Fujita for reasons that old and well known in the art. Since applicant did not traverse the examiner's assertion of official notice, this is taken as admitted prior art (see MPEP 2144.03).

20. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 1 above, and further in view of Watson (3,322,135).

McJones and Fujita disclose all the features of the claimed invention except that the actuatable valves comprise a solenoid valve. Watson discloses solenoid valves (23) on the discharge side of tanks (col. 4, lines 47-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the solenoid valves as disclosed by Watson onto the actuatable valve of McJones and Fujita, in order to utilize more cost effective valves.

21. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over McJones-Fujita-Agricola et al. as applied to claim 2 above, and further in view of Takeda et al..

McJones-Fujita-Agricola et al. disclose all the features of the claimed invention except that the pressure reducing valve comprises a check valve adapted to provide a substantially unimpeded flow of a gas from the manifold to the control modules. Takeda et al. disclose a valve structure that includes both a pressure reducing valve (21 and 22) and a check valve (32) as seen in Figures 2 and 3 which is adapted to provide a substantially unimpeded flow of a gas (page 3, paragraph 45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the check valve/pressure reducing valve combination as disclosed by Takeda et al. onto the system of McJones-Fujita-Agricola et al., in order to have the uninhibited flow of gas into the cylinders.

22. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 1 above, and further in view of Fujita.

McJones does not disclose that the system further comprises an electrochemical cell system in fluid communication with the manifold. Fujita discloses using the system with a fuel cell (page 1, paragraph 13).

It would have been obvious to one having ordinary skill in the art to utilize the system of McJones with a fuel cell as taught by Fujita, in order to improve the marketability of the system.

23. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 1 above, and further in view of Fujita.

McJones discloses all the features of the claimed invention except that the system is being used with hydrogen gas. Fujita discloses that the system is being used with hydrogen (page 1, paragraph 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the McJones system with hydrogen gas as taught by Fujita, in order to improve the marketability of the system.

24. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 16 above, and further in view of Agricola et al..

McJones and Fujita disclose all the claimed features of the invention except that a valve disposed between the manifold and the control modules. Agricola discloses using a solenoid valve (8) between the manifold and the solenoid valves (9)(control modules)(page 1, paragraph 17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the solenoid valve between the control modules and the manifold as disclosed by Agricola et al. onto the system of McJones and Fujita, in order to have more control of the system.

25. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 16 above, and further in view of Belcher, Jr..

McJones and Fujita disclose all the features of the claimed invention except that the gas regulation system further comprises an impedance safety monitor device in electrical communication with the power source. Belcher, Jr. discloses the use of an impedance device to take the place of a sensing element in a control circuit that would

sense the condition of the system and further has a shut down component (col. 1, lines 56-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the impedance device of Belcher, Jr. onto the system of McJones and Fujita, in order to have more control of the system.

26. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over McJones-Fujita-Agricola et al. as applied to claim 17 above, and further in view of Takeda et al..

McJones-Fujita-Agricola et al. disclose all the features of the claimed invention except that the gas flowing from the manifold to the control modules is at a pressure of 2000 psi or greater. Takeda discloses that the pressure that is used to charge the gas cylinders is equal to or greater than 2000 psi (page 3, paragraph 40) and that the pressure flowing from the control modules to the manifold is equal to or less than about 200 psi (page 3, paragraphs 43 and 44).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the system of McJones-Fujita-Agricola et al. with the pressures described by Takeda et al, in order to get the most out of the system.

27. Claim 26 rejected under 35 U.S.C. 103(a) as being unpatentable over McJones and Fujita as applied to claim 25 above, and further in view of Belcher, Jr..

McJones and Fujita disclose all the features of the claimed invention except that the gas regulation system further comprises an impedance safety monitor device in electrical communication with the power source. The term "wherein" is being given

patentable weight in such that the system only need to be capable of only opening one valve at a time. Belcher, Jr. discloses the use of an impedance device to take the place of a sensing element in a control circuit that would sense the condition of the system and further has a shut down component (col. 1, lines 56-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the impedance device of Belcher, Jr. onto the system of McJones and Fujita, in order to have more control of the system.

Allowable Subject Matter

28. Claims 8 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

29. Applicant's arguments filed 4/18/2006 have been fully considered but they are not persuasive. Regarding claim 1, the applicant is arguing that the prior art of Fujita does not only open one valve at a time and that more than one valve can function at one time. The term "adapted to" does not specifically define that the system can only have one valve functioning at a time. The system of Fujita can function with only one valve operating at a time therefore the prior art meets the scope of the claim even though Fujita can function with more than one valve actuating at a time. The power source is "adapted to prevent..." because there are separate actuation signals sent to each of the valves (see Fig. 1) and there is a mode in which the valves are actuated one at a time which inherently prevents the actuation of the others. Regarding claim 25, the

applicant is further arguing that the prior art of Fujita does not have a control that limits that only one valve is in communication with the manifold and that only a signal is sent if none of the valves are open in order to open a valve. The prior art of Fujita as discussed above does only actuate one valve at a time therefore it can only have one valve communicating with the manifold at a time. The system can function with more than one valve actuating at a time but can also work on a one at a time basis, which meets the scope of the claim. Regarding claim 7, the local actuators inherently have a unique identifier otherwise the system would not work.

30. Regarding claim 16 of McJones in View of Fujita, applicant is arguing that the combination of McJones and Fujita is not proper and that the two in combination would not function. McJones is the base reference and the teachings that are being used from Fujita onto McJones are the electrical controls and the electrically operated valves. The rest of the system of McJones is being kept and nothing else from Fujita is being used. Therefore the new system of McJones in view of Fujita would function properly.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 3753

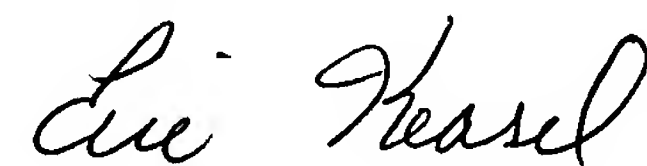
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig M. Schneider whose telephone number is (571) 272-3607. The examiner can normally be reached on M-F 8:30 -5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CMS *CMS*
July 5, 2006



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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700